

1           1.    A method comprising:  
2                   forming an arrayed waveguide grating having an  
3 array of waveguides; and  
4                   arranging a plurality of heaters to provide a  
5 temperature gradient across said array of waveguides.

1           2.    The method of claim 1 including forming an  
2 arrayed waveguide grating as a planar light wave circuit.

1           3.    The method of claim 2 including forming said  
2 arrayed waveguide grating on the first side of said circuit  
3 and forming said heaters on the opposite side of said  
4 circuit.

1           4.    The method of claim 3 including forming said  
2 heaters in generally the same configuration as said  
3 waveguides.

1           5.    The method of claim 4 including positioning said  
2 heaters on the opposite side of said circuit under said  
3 waveguides and directly aligned beneath said array of  
4 waveguides.

1           6.    The method of claim 1 including enabling said  
2 heaters to be selectively actuatable.

1        7.    The method of claim 6 including providing laser  
2 fuses for said heaters.

1        8.    The method of claim 7 including opening some of  
2 said fuses to select the heaters to be operated.

1        9.    The method of claim 1 including positioning said  
2 heaters to provide a desired temperature gradient across  
3 said array of waveguides.

1        10.   An arrayed waveguide grating comprising:  
2                a support structure;  
3                an array of waveguides on one side of said  
4 support structure; and  
5                at least two heaters positioned so as to provide  
6 a temperature gradient across said array of waveguides.

1        11.   The grating of claim 10 wherein said heaters are  
2 on one side of said structure and said array of waveguides  
3 is on the opposite side of said structure.

1        12.   The grating of claim 11 wherein said heaters are  
2 selectively actuatable.

1        13.   The grating of claim 10 wherein said structure is  
2 a planar light wave circuit.

1        14. The grating of claim 10 wherein said heaters are  
2 directly below said array of waveguides.

1        15. The grating of claim 10 wherein said heaters are  
2 arranged in generally the same configuration as said array  
3 of waveguides.

1        16. The grating of claim 15 wherein less heaters are  
2 provided than waveguides.

1        17. The grating of claim 10 wherein said heaters  
2 include laser actuatable fuses.

1        18. An arrayed waveguide grating comprising:  
2                a support structure;  
3                an array of waveguides; and  
4                an array of heaters arranged in substantially the  
5 same configuration as said array of waveguides, said array  
6 of heaters being positioned on one side of said support  
7 structure and said array of waveguides being positioned on  
8 the opposite side of said support structure.

1        19. The grating of claim 18 wherein said heaters are  
2 selectively actuatable.

1        20. The grating of claim 19 wherein said heaters  
2 include actuatable fuses.

1        21. The grating of claim 20 wherein said fuses are  
2 laser actuatable fuses.

1        22. The grating of claim 18 wherein said structure is  
2 a planar light wave circuit.

1        23. The grating of claim 18 wherein said array of  
2 heaters is arranged substantially directly below said array  
3 of waveguides.

1        24. The grating of claim 23 wherein there are less  
2 heaters than waveguides.